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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/407,184	09/27/1999	FARSHAD KHORRAMI	457020-2250.	2412

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NEW YORK, NY 10151

EXAMINER

CONTEE, JOY KIMBERLY

ART UNIT	PAPER NUMBER
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2686

DATE MAILED: 11/07/2003

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/407,184

Applicant(s)

Khorrami et al.

Examiner

Joy Contee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Aug 8, 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7, 13, 16, 19, 25, 26, 28-37, 40-43, 49, and 50 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13, 19, 25, 26, 28-37, 40-43, 49, and 50 is/are allowed.
- 6) ☒ Claim(s) 7 and 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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DETAILED ACTION

Response to Arguments

1. The indicated allowability of claims 7 and 16 is withdrawn in view of the newly discovered reference(s) to Edwards et al., U.S. Patent NO. 4,684,929. Rejections based on the newly cited reference follow.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 7 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spillman, Jr., U.S. Patent No. 5,440,300, previously used, in view of Edwards et al. ("Edwards"), U.S. Patent No. 4,684,929, newly discovered.

Regarding claim 7, Spillman, Jr. discloses a wireless communication system comprising:
a number of sensors each having one or more antenna associated therewith and being
adaptable to be located on or within an element, each sensor being adaptable to detect at least one

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respective predetermined characteristic(e.g.,stress, strain or vibration, cracks or separation) of said element (col. 2, line 15 to col. 3, line 11); and

control transceiver means (i.e., RF coupling 68 in Fig. 9C), operable to communicate in a wireless manner with said number of sensors, for supplying a RF signal to at least one antenna (col. 4, lines 27-37 and col. 5, lines 7-16);

whereby, in response to said RF signal, the respective sensor or sensors and the at least one antenna associated therewith generate by use of electromagnetic coupling therebetween a characteristic signal indicative of a detected respective characteristic or characteristics and modulate the same so as to obtain an output signal and transmit said output signal (col. 2, line 40 to col. 3, line 11).

Spillman,Jr. fails to explicitly disclose wherein said control transceiver means communicates with each said sensor over a microwave frequency range.

In a similar field of endeavor, Edwards provides evidence wherein said control transceiver (i.e., transmitter 4, see Fig. 1) means communicates with each said sensor (i.e., reads on reflector 8) over a microwave frequency range (col. 4, lines 3-13).

At the time of the invention it would have been obvious to one of ordinary skill in the art to have modified Spillman, Jr. to include antennae using microwave frequency ranges since it is known in the art that communication systems using the highly directive microwave frequencies are seemingly superior to other types of systems in that the properties of microwaves are similar to the properties of light waves.

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Regarding claim 16, Spillman, Jr. discloses a wireless communication system comprising:

a number of sensors each having one or more antenna associated therewith and being adaptable to be located on or within an element, each sensor being adaptable to detect at least one respective predetermined characteristic(e.g.,stress, strain or vibration, cracks or separation) of said element (col. 2, line 15 to col. 3, line 11); and

control transceiver means (i.e., RF coupling 68 in Fig. 9C), operable to communicate in a wireless manner with said number of sensors, for supplying a RF signal to at least one antenna (col. 4, lines 27-37 and col. 5, lines 7-16);

whereby, in response to said RF signal, the respective sensor or sensors and the at least one antenna associated therewith generate by use of electromagnetic coupling therebetween a characteristic signal indicative of a detected respective characteristic or characteristics and modulate the same so as to obtain an output signal and transmit said output signal (col. 2, line 40 to col. 3, line 11).

Spillman, Jr. fails to explicitly disclose wherein each said antenna is a micro-strip type antenna.

In a similar field of endeavor, Edwards discloses wherein each said antenna (i.e., reads on phased array of antennae) is a micro-strip type antenna (col. 4, lines 18-27).

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At the time of the invention it would have been obvious to one of ordinary skill in the art to have modified Spillman, Jr. to include use of micro-strip type antennae since it is known that it is typically less expensive to use micro-strip antennae, as taught in Edwards (col. 4, line 18-20).

Allowable Subject Matter

4. Claims 13,19,25,26,28-37, 40-43 and 49-50 are allowed.
5. The following is a statement of reasons for the indication of allowable subject matter:
Prior art of record fails to disclose the wireless communication system comprising a number of actuators for supplying a modulated command signal to at least one antenna, wherein a transceiver communicates with the actuator using a microwave frequency.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Brown et al., U.S. Patent No. 5,351,036, discloses a microwave based point liquid level monitoring system.

Eskandry et al., U.S. Patent No. 4,430,645, discloses a surveillance system employing a dual function floor mat radiator.

Cole et al., U.S. Patent No. 3,707,711, discloses an electronic surveillance system.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joy K. Contee whose telephone number is (703) 308-0149, M-F, 5:30 to 2:00 p.m.

If attempts to reach the examiner are not successful, the examiner's supervisor, Marsha Banks-Harold can be reached on (703)305-4379.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703)306-0377.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9306, (for formal communications intended for entry or for informal or draft communications, please label "PROPOSED" or "DRAFT")

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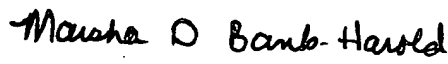
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Joy K. Contee

October 30, 2003


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